



Science

LEVEL GREEN

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STANDARDS		PAGE REFERENCES
<p>Standard 1.0 Skills and Processes Students will demonstrate the thinking and acting inherent in the practice of science.</p>		
<p>Topic A. Constructing Knowledge</p>		
<p>Indicator 1. Design, analyze, or carry out simple investigations and formulate appropriate conclusions based on data obtained or provided.</p>	<p>Student Edition: 12-14, 16-18 <i>Lab: Design Your Own</i> 108-109, 354-355, 550-551 <i>Lab: Model and Invent</i> 138-139, 202-203, 582-583 Teacher Wraparound Edition: AIL 354, 424; DIF 15</p>	
<p>Topic B. Applying Evidence and Reasoning</p>		
<p>Indicator 1. Review data from a simple experiment, summarize the data, and construct a logical argument about the cause-and-effect relationships in the experiment.</p>	<p>Student Edition: <i>Applying Science</i> 94, 150 <i>Lab</i> 167, 266-267, 424-425 <i>Lab: Design Your Own</i> 108-109 <i>MiniLab</i> 635 Teacher Wraparound Edition: AIL 354, 424</p>	

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<p>Topic C. Communicating Scientific Information</p>		
<p>Indicator 1. Develop explanations that explicitly link data from investigations conducted, selected readings and, when appropriate, contributions from historical discoveries.</p>	<p>Outside readings easily can be incorporated into the following Labs. Student Edition: <i>Lab: Design Your Own</i> 324-325, 550-551, 674-675 <i>Lab: Use the Internet</i> 296-297, 522-523</p>	
<p>Topic D. Technology</p>		
<p>Indicator 1. Explain that complex systems require control mechanisms.</p>	<p>The following page references can be used to meet this standard. Student Edition: 562-566, 723, 726-727, 731-737 <i>Lab: Model and Invent</i> 138-139, 582-583 <i>National Geographic</i> 567 Teacher Wraparound Edition: AS 727; DIF 565, 732; TFYI 734; VL 723</p>	
<p>Indicator 2. Analyze, design, assemble and troubleshoot complex systems.</p>	<p>The following page references can be used to meet this standard. Student Edition: 562-566, 723, 726-727, 731-737 <i>Lab: Model and Invent</i> 138-139, 582-583 <i>National Geographic</i> 567 Teacher Wraparound Edition: AS 727; DIF 565, 732; TFYI 734; VL 723</p>	
<p>Indicator 3. Analyze the value and the limitations of different types of models in explaining real things and processes.</p>	<p>The following page references can be used to meet this standard. Student Edition: <i>Lab</i> 20-21, 167, 424-425, 577, 665 <i>Launch Lab</i> 5 <i>MiniLab</i> 157, 186, 225 Teacher Wraparound Edition: IL 340; MAM 293</p>	
<p>Standard 2.0 Earth/Space Science Students will use scientific skills and processes to explain the chemical and physical interactions (i.e., natural forces and cycles, transfer of energy) of the environment, Earth, and the universe that occur over time.</p>		

STANDARDS	PAGE REFERENCES
<p>Standard 3.0 Life Science</p>	
<p>The students will use scientific skills and processes to explain the dynamic nature of living things, their interactions, and the results from the interactions that occur over time.</p>	
<p>Topic A. Diversity of Life</p>	
<p>Indicator 1. Compile evidence to verify the claim of biologists that the features of organisms connect or differentiate them-these include external and internal structures (features) and processes.</p>	<p>Student Edition: 219, 347-349, 350-353 <i>Integrate Earth Science</i> 347 <i>Launch Lab</i> 213 <i>Section Review</i> 220 (#2), 349 (#6), 353 (#1) Teacher Wraparound Edition: DI 220; TFYI 347</p>
<p>Topic B. Cells</p>	
<p>Indicator 1. Gather and organize data to defend or argue the proposition that all living things are cellular (composed of cells) and that cells carry out the basic life functions.</p>	<p>Student Edition: 214, 221, 224-230, 501 <i>Lab</i> 231 Teacher Wraparound Edition: TTPK 221</p>
<p>Indicator 2. Recognize and provide examples that human beings, like other organisms have complex body systems of cells, tissues and organs that interact to support an organism's growth and survival.</p>	<p>Student Edition: 230, 366-367, 371-373, 401-404, 412-414, 419-421, 434-436, 449-451, 468-469, 472 <i>Section Review</i> 404 (#3), 423 (#2), 437 (#3) Teacher Wraparound Edition: QD 435; TFYI 421; TTPK 412</p>
<p>Topic C. Genetics</p>	
<p>Indicator 1. Explain the ways that genetic information is passed from parent to offspring in different organisms.</p>	<p>Student Edition: 281-282, 284-285, 306, 479 <i>Section Review</i> 282 (#2), 289 (#1) Teacher Wraparound Edition: IL 307; LD 280; VL 307</p>

STANDARDS		PAGE REFERENCES
<p>Topic E. Flow of Matter and Energy</p>		
<p>Indicator 1. Explain that the transfer and transformation of matter and energy links organisms to one another and to their physical setting.</p>	<p>Student Edition: 544, 546-549 <i>National Geographic</i> 545 <i>Section Review</i> 549 (#3, #6) Teacher Wraparound Edition: AC 544; DIF 547; IL 546</p>	
<p>Standard 4.0 Chemistry Students will use scientific skills and processes to explain the composition, structure, and interactions of matter in order to support the predictability of structure and energy transformations.</p>		
<p>Topic A. Structure of Matter</p>		
<p>Indicator 1. Cite evidence to support the fact that all matter is made up of atoms, which are far too small to see directly through a microscope.</p>	<p>Student Edition: 246, 620 Teacher Wraparound Edition: DIF 247</p>	
<p>Standard 5.0 Physics Students will use scientific skills and processes to explain the interactions of matter and energy and the energy transformations that occur</p>		
<p>Standard 6.0 Environmental Science Students will use scientific skills and processes to explain the interactions of environmental factors (living and non-living) and analyze their impact from a local to a global perspective.</p>		
<p>Topic A. Natural Resources and Human Needs</p>		
<p>Indicator 1. Recognize and explain the impact of a changing human population on the use of natural resources and on environmental quality.</p>	<p>The following page references can be used to meet this standard. Student Edition: 165, 540-541, 560-561, 729-730 <i>Applying Science</i> 732 <i>Science Online</i> 165, 540 Teacher Wraparound Edition: UAA 561</p>	

STANDARDS		PAGE REFERENCES
<p>Topic B. Environmental Issues</p>		
<p>Indicator 1. Recognize and describe that environmental changes can have local, regional, and global consequences.</p>	<p>Student Edition: 156-157, 160-166, 562, 569, 570-571 <i>Lab</i> 167, 577 <i>MiniLab</i> 157, 562 <i>National Geographic</i> 158-159 <i>Science Online</i> 163, 165 Teacher Wraparound Edition: AC 158; CB 159</p>	